Du'Bois J. Ferguson
Remediation Manager

Schlumberger Oilfield Service
300 Schlumberger Drive
Sugar Land, TX 77478
Tel: 281-285-3692
DFerguson3@slb.com

October 10, 2010

VIA FedEx Overnight

Section Chief
Environmental Enforcement Section
U.S. Department of Justice
PO Box 7611
Washington, DC 20044-7611

Craig Zeller
Remedial Project Manager
Superfund Division
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

Re: DOJ Case No. 90-11-2-696/1

Subject: September 2010 Monthly Report
Sangamo Weston/Twelvemile Creek/Lake Hartwell Superfund Site
Natural Resources Trustees Consent Decree

Dear Section Chief:

In accordance with the Consent Decree and Section XIV of the Unilateral Administrative Order for the above referenced site, Schlumberger is required to submit Progress Reports on a quarterly basis. Given the current pace of activities, we will be submitting Progress Reports on a monthly basis until further notice in satisfaction of the reporting requirements of the Consent Decree and Unilateral Administrative Order.

In keeping with Paragraph 20 of the Consent Decree:

> I certify that the information contained in or accompanying this submission is true, accurate and complete. This certification is based on my personal preparation, review, or analysis of the submission, and/or supervision of persons who, acting on my instructions, made the verification that the submitted information is true, accurate and complete.

If you have any questions, please do not hesitate to contact me at (281) 285-3692.

Sincerely,

D. J. Ferguson

DuBois J. Ferguson
Remediation Manager

U.S. EPA REGION IV

SDMS

POOR LEGIBILITY

PORTIONS OF THIS DOCUMENT MAY BE DIFFICULT TO VIEW DUE TO THE QUALITY OF THE ORIGINAL.

TO MAKE THE DOCUMENT READABLE, TRY ONE OR MORE OF THE FOLLOWING:

From the Displays Settings in Windows Control Panel:

1. Set the Color Quality to the highest available: 24 bit or 36 bit.
2. Increase or decrease the Screen resolution.

From the Monitor/Display Controls:

1. For dark image page, increase the brightness and decrease the contrast.
2. For light image page, decrease the brightness and increase the contrast.

** PLEASE CONTACT THE APPROPRIATE RECORDS CENTER TO VIEW THE MATERIAL**

V. 2-040506

cc: Honorable G. Ross Anderson, Jr.
G. Ross Anderson, Jr. Federal Building
and United States Courthouse
315 South McDuffie Street, 2nd Floor
Anderson, SC 29624

Honorable William W. Wilkins
Nexsen Pruet
55 E. Camperdown Way
Suite 400
Greenville SC 29601

Leon C. Harmon Esq.
Nexsen Pruet
55 E. Camperdown Way
Suite 400
Greenville SC 29601

John Cresswell
Assistant Director
Division of Site Assessment and Remediation
Bureau of Land &Waste Management
SC Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

Regional Solicitor's Office
U.S. Department of the Interior
Attn: Harriet M. Deal
75 Spring Street, SW Room 304
Atlanta, GA 30303

Diane Beeman & Diane Duncan
Ecological Services Office
U.S. Fish and Wildlife Service
176 Croghan Spur Road, Suite 200
Charleston, SC 29407

Paul League
SC Department of Natural Resources
Office of Chief Counsel
1000 Assembly Street
Columbia, SC 29202

Anthony Rabern
Georgia Department of Natural Resources
3695 Highway 197
Clarkesville, GA 30523

Office of the Attorney General
Timothy J. Ritzka
Assistant Attorney General
40 Capitol Square SW
Atlanta, GA 30334

Jamie Sykes
Richard B. Russell Project Office
4144 Russell Dam Drive
Elberton, GA 30635

Frank S. Holleman III
Wyche Burgess Freeman & Parham, P.A.
44 East Camperdown Way
Greenville SC 29601-3591

Mr. Paul Doody
ARCADIS
6723 Towpath Road
Syracuse, NY 13214-0066

Mr. John N. Hanson
Beveridge & Diamond, P.C.
1350 I Street, N.W.
Suite 700
Washington, D.C. 20005-3311

September 2010 Monthly Report
Sangamo Weston/Twelvemile Creek/Lake Hartwell Superfund Site
Operable Unit 2

Activities Initiated/Completed

- Dredge Clare has progressed approximately to Station 9+50 (Woodside I Impoundment), and dredge Kami has progressed approximately to Station 48+50 (Woodside II Impoundment).
- September 14, 2010, a site visit was performed by Craig Zeller of USEPA and Greg Cassidy, Van Keisler and Chuck Williams of SCDHEC.
- September 21, 2010, SCDHEC Solid Waste Management Regional personnel was onsite for a general visit/inspection and performed a Class Three Landfill Inspection in accordance with Regulation 61-107.19, Part V. The completed Inspection Form is provided as Attachment 1.

Results of Sampling, Tests, and Other Data

- Collected post-dredge survey data in Twelvemile Creek in 100 foot interval sections. Information from the first four 500 foot sections from the Woodside II Impoundment and the first section in Woodside I have been submitted to the Special Receivers in accordance with the Dredge Verification Plan.
- Sampling and analysis is being conducted relative to the creek turbidity, and water treatment system (WTS) effluent water. Results for the effluent water are attached (Attachment 2) and the continuous turbidity monitoring data is available upon written request.
- Project photographs are included as Attachment 3.

Plans, Reports, and other Deliverables

- Analytical data related to samples collected from the WTS to assess water treatment effluent water were submitted to SCDHEC in the August Monthly Report (submitted September 28, 2010) in Attachment 2.

Work Planned for October 2010

- Continue sediment dredging activities in the WSI and WSII impoundments.
- Continue dredge verification surveys with submittal of each 500 foot section to the Special Receivers and their consultant.
- Continue monitoring WTS to maximize performance and increase production.
- Continue placement of dredged sediment in SMU.

- As soon as (1) Taylor Engineering concludes the dredger has made every effort practicable to remove sediment from Twelvemile Creek for STA 0+00 to STA 15+00, and (2) 48 hours has passed since the Trustees received a copy of Taylor Engineering's Dredge Verification Report for STA 10+00 to STA 15+00, STC will remove Dredge Clare from Twelvemile Creek.

Problems Encountered, Anticipated Delays, Solutions

- The significant amount of debris and vegetation encountered at times during dredging of islands within each of the impoundments has caused material handling difficulties, which has slowed the pace of dredging and the pace of the verification survey.
- The delay in receiving timely approval of dredge verification reports prepared by Taylor Engineering, Inc. is negatively impacting the ability to adhere to the schedule for dredging and dam removals.

ARCADIS

Attachment 1

DHEC

Class Three Landfill Inspection Form
Regulation 61-107.19, Part V

Facility Name: 12 MILE CREEK ROT. PROJECT (??) Date/time of inspection: 21 SEP 10

County: GREENVILLE Permit #:

Reason for inspection: X Routine ___ Follow-up ___ Complaint ___ Other ___

Current Weather Conditions: CLOUDY SKIES 90

Previous 24-hours: Rain Y (N) If yes, amount ___ inches; High winds Y (N)

1 – Meets or exceeds regulatory requirements; 2A – Improvement needed (minor issues exist; corrective measures recommended); 2B – Improvement needed (moderate issues exist; corrective action required and scheduled); 3 – Unacceptable (serious issues and/or recurring issues with minimal or no corrective action taken – alleged regulatory or permit condition violations have occurred – enforcement referral required); Y – Yes: Meets or exceeds regulatory requirements; N – No: Corrective measures recommended that should be fixed by the next inspection or an agreed upon completion date; NA – Not applicable; NI – Not inspected.

Procedures for Excluding Receipt of Unapproved Waste (258.20)
1. N/A Overall effectiveness of Special Waste Analysis and Implementation Plan (SWAIP)
2. Y N NA NI Trained waste screener present
3. Y N NA NI Random daily load inspections conducted and documented
4. Y N NA NI Records of unacceptable waste maintained
5. Y N NA NI Personnel training program on recognition of regulated hazardous waste and PCB waste
6. Y N NA NI Record of Notification to Department within 72 hours of hazardous or PCB waste receipt
7. Y N NA NI Unauthorized wastes removed from working face by the end of the operating day

Cover Material Requirements (258.21)
8. ___ ≥ 6" soil (short-term cover)
9. NA Alternate Daily Cover (ADC)
10. ___ ≥ 6" soil (long-term and/or intermediate cover)
11. Y N NA NI Adequate soil quantity available for cover

Control of (258.21, 22, 24, 26 and 37)
12. 1 Blowing litter
13. 1 Off-site odors
14. 1 Disease vectors
15. 1 Fires/Open burning
16. 1 Scavenging

Access Requirements (258.25)
17. 1 Condition of access controls
18. 1 Condition of all weather roads – entrance
19. 1 Condition of all weather – internal/haul roads

Run-on/Run-off Controls (258.26)
20. 1 Condition of ditches/swales
21. 1 Condition of berms/terraces/downchutes
22. 1 Condition of sedimentation ponds

Leachate Seeps (258.26 and 27)
23. NA Leachate seep management

Liquid Restrictions (258.28)
24. NA Free of unauthorized bulk or non-containerized liquids

Record Keeping Requirements (258.29)
25. Y N NA (NI) Required records are maintained in the landfill's operating record

Scale Requirements (258.30)
26. Y N (NA) NI Scales installed and function properly

Required Equipment to Operate Landfill (258.31)
27. Y N NA NI Required equipment operational – if not, please provide details in comments as to the type of equipment down for repairs, impact to operations, and status on temporary replacement equipment
DREDGE ALL / TRACKHOE / SCREENER / FRONT LOADER

Certified Landfill Manager/Supervisor (258.32)
28. Y N (NA) NI Manager and supervisor certified by SCDHEC
29. Y N (NA) NI Certified manager or supervisor on-site

Leachate Collection System (258.33 and 34)
30. Y N (NA) NI Leachate handling agreement in place
31. ___ Leachate collection system management

Leachate Recirculation System (258 Subpart I and Permit)
32. ___ Leachate recirculation system management
33. Y N NA NI Required leachate recirculation reports/data contained in the landfill's operating record
34. ___ Leachate seep management
35. ___ Leachate collection system management

Testing of Municipal Solid Waste (MSW) Incinerator Ash (258.35)
36. Y N (NA) NI MSW incinerator ash management

Sign Requirements (258.36)
37. Y N NA NI Required signs posted

Condition of Monitoring Wells (258.51)
38. 1 Monitoring well maintenance program

Working Face Elevation (258.47)
39. Y N NA (NI) Method of elevation control with benchmark

Plans and Permit (Permit)
40. Y N NA (NI) Operating in accordance with approved plans and general permit
41. Y N NA NI Permitted engineering drawings available
42. Y N NA NI Permitted operational plan available
43. Y N NA NI Permitted stabilization/landscaping plan available
44. Y N NA NI Permitted contingency plan available
45. Y N NA NI Permitted approved groundwater monitoring plan available
46. Y N NA NI Permitted closure plan available
47. Y N NA NI Permitted post-closure plan available

Name of those present during the inspection: STEPHEN HADLEY

Comments: DREDGING OPS ARE DOWN DUE TO CLEANING OUT SED POND

Inspection item	Corrective action required	Date to be completed
	NO PROBLEMS NOTED DURING INSPECTION	

Additional comment page: Y (N) Photos taken: (Y) N

The signature below certifies that the SCDHEC Inspector has personally checked each item and has answered according to the true condition existing at the time of inspection.

Facility Representative ___ SCDHEC Inspector: Bill Rogers

ARCADIS

Attachment 2

ARCADIS
Infrastructure, environment, buildings

ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.449.0017
www.arcadis-us.com

ENVIRONMENTAL

Mr. Dale Stoudemire, Manager
South Carolina Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data Management Section
2600 Bull Street
Columbia, South Carolina 29201

Subject:
Schlumberger Technology Corporation, Twelvemile Creek Restoration Project
Pickens County, South Carolina
August 2010 Sampling Results Report

Date:
September 28, 2010

Contact:
Lance S. Ketcham

Phone:
315.671.9163

Email:
Lance.Ketcham@
arcadis-us.com

Our ref:
MT001019

Dear Mr. Stoudemire:

On behalf of Schlumberger Technology Corporation (STC), ARCADIS is providing a summary of sampling results for the Twelvemile Creek Restoration Project in Pickens County for the month of August 2010 in accordance with the October 15, 2009 letter from Butch Swygert of South Carolina Department of Health and Environmental Control (SCDHEC) to Chris Moody of ARCADIS and the August 9, 2010 SCDHEC construction operation approval memorandum, which replaces the March 11, 2010 SCDHEC construction operation approval memorandum. The August 9, 2010 approval memorandum upgrades the onsite water treatment plant to a Group III – Physical/Chemical facility with a maximum discharge of 8.64 million gallons per day (MGD).

Table 1 contains the daily discharge information from the water treatment plant to Twelvemile Creek. This data is recorded onsite and is reviewed by a South Carolina certified water treatment plant operator. The maximum daily discharge for August 2010 was 5.72 MGD on August 19. The average discharge from the water treatment plant for the month of August was 2.87 MGD.

Table 2 contains the results of the analyses described in Table 1 of the October 15, 2009 letter that were performed on the water treatment plant effluent during the month of August 2010. The Laboratory Services Reports from Rogers & Callcott Laboratory Services related to these tests are provided in Attachment A. The samples were analyzed for pH, temperature, total suspended solids and PCBs. The sample collected on August 17 had detectable concentrations of PCBs of 1.0 micrograms per liter. The August 17 sample results were received the afternoon of

August 24th. At that time, the morning sampling on August 24 was already being conducted. The August 24 sample result was 1.4 micrograms per liter. Upon receipt of the PCB data showing PCB detections greater than 0.5 micrograms per liter, the team began troubleshooting and taking corrective measure to address the issue. On August 28, 2010, Weston collected an additional grab sample of the final water treatment plant effluent for PCB analysis; no PCBs were detected in this sample. Additionally, no PCBs were detected in the August 31, 2010 sample collected as a part of the stepped up water treatment plant monitoring program.

Table 3 summarizes the results of the whole effluent toxicity (WET) testing; the Laboratory Services Reports for these tests are provided in Attachment B. The results of the chronic and acute WET testing performed in August 2010 were within the ranges outlined in the October 15, 2009 letter.

If you have any questions on the above, please feel free to contact me.

Sincerely,

ARCADIS

Lance S. Ketcham
Principal Engineer

Copies:
Melinda Vickers, SCDHEC
Eric Kim, SCDHEC
Du'Bois J. Ferguson, STC
Gary Odom, STC
Paul Doody, ARCADIS

ARCADIS

Tables

Table 1. Daily Discharge from Water Treatment Plant for August 2010, Twelvemile Creek Restoration Project, Pickens County

Date	Discharge, MGD
Monthly Avg [1]	MR
Daily Max [1]	MR
8/1/2010	0.00
8/2/2010	2.17
8/3/2010	2.75
8/4/2010	3.76
8/5/2010	3.98
8/6/2010	3.55
8/7/2010	2.94
8/8/2010	0.00
8/9/2010	2.66
8/10/2010	3.02
8/11/2010	3.28
8/12/2010	3.14
8/13/2010	4.39
8/14/2010	4.64
8/15/2010	0.00
8/16/2010	3.41
8/17/2010	3.21
8/18/2010	3.98
8/19/2010	**5.72**
8/20/2010	4.32
8/21/2010	4.68
8/22/2010	0.00
8/23/2010	0.96
8/24/2010	5.05
8/25/2010	0.32
8/26/2010	3.57
8/27/2010	2.39
8/28/2010	3.32
8/29/2010	0.00
8/30/2010	3.39
8/31/2010	4.29
Total	88.90
Days per Month	31
Average	2.87

Notes:

1. Data is from onsite records detailing the daily discharge volumes to Twelvemile Creek; a discharge of 0 MGD is reported on Sundays when the treatment plant is not operating or discharging to Twelvemile Creek.

2. Starting August 28, 2010 WESTON took over the role as the South Carolina certified wastewater treatement plant operator of the onsite water treatment plant and providing discharge information. Prior to this discharge data was collected by the treatment plant operator with Rogers & Callcott.

3. The bolded value is the maximum daily discharge recorded.

Superscript Notes:

[1] Discharge reporting guidelines are outlined in the 10/15/2009 letter from Butch Swygert (South Carolina Department of Health and Environmental Control) to Chris Moody (ARCADIS).

Acronyms and Abbreviations:

Avg - average

Max - maximum

MGD - million gallons per day

MR - monitor and report

Table 2. Effluent Sampling Result for August 2010. Twelvemile Creek Restoration Project, Pickens County

Sample ID	Location	Sample Type	Week	Sample Date and Time	pH	Temp. (°C)	TSS (mg/L)	PCB (µg/L)						
								PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Monthly Avg.[1]	–	–	–	–	6.0 to 8.5	–	25	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Daily Max.[1]	–	–	–	–	6.0 to 8.5	–	45	0.5	0.5	0.5	0.5	0.5	0.5	0.5
AC83631	WTP Effluent Discharge	G	1	8/3/10 9:10	6.7	25.4	NA	NA	NA	NA	NA	NA	NA	NA
AC83632	WTP Effluent Discharge	C		8/3/10 9:05	NA	NA	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AC84189	WTP Effluent Discharge	G	2	8/10/10 9:05	6.6	27.5	NA	NA	NA	NA	NA	NA	NA	NA
AC84190	WTP Effluent Discharge	C		8/10/10 9:00	NA	NA	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AC84740	WTP Effluent Discharge	G	3	8/17/10 9:20	6.4	27.0	NA	NA	NA	NA	NA	NA	NA	NA
AC84741	WTP Effluent Discharge	C		8/17/10 9:15	NA	NA	13	<0.5	<0.5	<0.5	<0.5	[redacted]	<0.5	<0.5
AC85198	WTP Effluent Discharge	G	4	8/24/10 9:05	6.4	26.6	NA	NA	NA	NA	NA	NA	NA	NA
AC85199	WTP Effluent Discharge	C		8/24/10 9:00	NA	NA	9.0	<0.5	<0.5	<0.5	<0.5	[redacted]	<0.5	<0.5
AC85474	WTP Effluent Discharge	G	NA[2]	8/26/10 16:00	NA	NA	4.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AC85564	WTP Effluent Discharge	G	5	8/31/10 9:20	6.5	24.9	NA	NA	NA	NA	NA	NA	NA	NA
AC85565	WTP Effluent Discharge	C		8/31/10 9:15	NA	NA	3.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
				Average	6.5	26.3	5.8	-	-	-	-	[redacted]	-	-

Notes:

1. Sampling results compiled from Laboratory Services Reports provided by Rogers & Callcot Laboratory Services and submitted in tabular form as required per the10/15/2009 letter from Butch Swygert (South Carolina Department of Health and Environmental Control [SCDHEC]) to Chris Moody (ARCADIS) and the 3/11/2010 SCDHEC construction and operational approval memorandum.
2. Shaded values are not within the range outlined in the 10/15/2009 letter.
3. The monthly average includes non-detect readings (indicated by "<") and assumes a value equal to the detection limit. Monthly averages are not calculated for parameters without a detected concentration (indicated by "-").

Superscript Note:

[1] Discharge reporting guidelines and limits are outlined in the 10/15/2009 letter from Butch Swygert (SDHEC) to Chris Moody (ARCADIS)

[2] A sample was taken by Weston on 8/27/2010 for PCB testing; this sample is in addition to the regular samples collected per the 10/15/2009 letter from Butch Swygert (SDHEC).

Acronyms and Abbreviations:

°C - degrees centigrade
G - grab sample
C - 24-hour composite sample
ID - identification
µg/L - micrograms/liter
MGD - *million gallons per day*
mg/L - milligrams per liter
NA - not analyzed
PCB - polychlorinated biphenyl
Temp. - temperature

Table 3. Whole Effluent Toxicity Result for August 2010. Twelvemile Creek Restoration Project, Pickens County

WET Analysis	Monthly Avg. [1]	Daily Max. [1]	Results
Ceriodaphnia dubia Chronic WET @ CTC=17.4%	25%	40%	13.6%
Ceriodaphnia dubia Chronic WET-Reproduction @ CTC=17.4%	MR, %	MR, %	13.6%
Ceriodaphnia dubia Chronic WET-Survival @ CTC=17.4%	MR, %	MR, %	0.0%
Ceriodaphnia dubia Acute WET @ ATC=35.5%	--	0 [2]	0

Notes:

1. Samples collected by Rogers & Callcott on 8/3, 8/4, and 8/6/2010. One composite sample was collected each day (sample numbers AC83569, AC83659, and AC83832, respectively) to complete the Chronic WET testing. Sample AC83569 was used in the Acute WET testing. Samples were analyzed by ETT.

Superscript Notes:

[1] Discharge reporting guidelines and limits are outlined in the 10/15/2009 letter from Butch Swygert (South Carolina Department of Health and Environmental Control) to Chris Moody (ARCADIS)

[2] A results of "0" indicates a passing result.

Acronyms and Abbreviations:

MR - monitor and report

WET - whole effluent toxicity

ARCADIS

Attachments

ARCADIS

Attachment A

Laboratory Services Report:
October 15, 2009 Table 1
Analyses

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Received: 08/03/2010
Time Received: 12:15
Date Reported: 08/05/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC83631	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/03/2010 at 09:10
AC83632	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/03/2010 at 09:05

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: _____ *Results reviewed by:* _____
authorized signature

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

Sample Number	Sample Description, Date and Time Collected
AC83631	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/03/2010 at 09:10

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
pH (Field)	6.7	pH units		0.1	08/03/2010 09:10	LRW	SM 4500HB
Temperature (Field)	26.4	degrees C		0.1	08/03/2010 09:10	LRW	SM 2550B

Sample Number	Sample Description, Date and Time Collected
AC83632	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/03/2010 at 09:05

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Total Suspended Solids	< RDL	mg/l		2.0	08/03/2010 12:45	LBW	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1248	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	08/04/2010 21:37	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	78	%		0	08/04/2010 21:37	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	94	%		0	08/04/2010 21:37	RKH	EPA 608
Liquid-liquid Extraction Pest/PCB 608	Completed				08/03/2010 15:00	DBB	EPA 608

ROGERS & CALLCOTT LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

Client Name SCHLUMBERGER

Address

Report To:

Telephone No. FAX No.

PO No. Project No. TMC

Rogers & Callcott Lab No.	Yr 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS										
					TSS	PCB									
Filtered (Yes/No)					N	N									
Cooled (Yes/No)					Y	Y									
Container Type (P/G)					P	G									
Container Volume					1/2 G	2 1/2									
Sample Type (Grab/Composite)					C	C									
Sample Source (WW, GW, DW, Other)					WW	WW									
Sample Source Chlorinated (Yes/No)					N	N									
Lab Receipt Cl2 Check					NA	Neg									
Lab Receipt pH Check					NA	7									
Preserved (Code)					A	A									
AC	83632	8/3	0905	WATER TREATMENT PLANT EFF. DISCHARGE	2		1	1	N						

A=None D=NaOH G=Boric Acid
B=HNO_3 E=HCL H=Ascorbic Acid
C=H_2SO_4 F=$Na_2S_2O_3$ I= ____

COMMENTS:

SAMPLER SET OUT @ 0905 ON 8/2/10, TIME PROP. BY R&C

AC83631

pH 6.7 GRAB TAKEN + READ Temp 25.4 @ 0910 ON 8/3/10 BY R+C

SAMPLER Relinquished by (Sig.) ①	Date/Time 8.3.10 1215	Received by (Sig.) ② Shipper Name & #	Date/Time 8/3/10 1215
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time
Seal # at'chd by ○ Recvd. Intact by ○		Seal # at'chd by ○ Recvd. Intact by ○	

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

Temperature of blank or representative sample
At time of collection 6.0 °C
At time of lab receipt 1.3 °C

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Received: 08/10/2010
Time Received: 11:44
Date Reported: 08/13/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC84189	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/10/2010 at 09:05
AC84190	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/10/2010 at 09:00

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: Anne Norris
authorized signature

Results reviewed by: SSC

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

Sample Number	Sample Description, Date and Time Collected
AC84189	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/10/2010 at 09:05

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
pH (Field)	6.6	pH units		0.1	08/10/2010 09:05	LRW	SM 4500HB
Temperature (Field)	27.5	degrees C		0.1	08/10/2010 09:05	LRW	SM 2550B

Sample Number	Sample Description, Date and Time Collected
AC84190	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/10/2010 at 09:00

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Total Suspended Solids	2.2	mg/l		2.0	08/10/2010 13:10	LBW	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1248	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	08/11/2010 20:05	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	96	%		0	08/11/2010 20:05	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	100	%		0	08/11/2010 20:05	RKH	EPA 608
Liquid-liquid Extraction Pest/PCB 608	Completed				08/10/2010 13:45	DBB	EPA 608

ROGERS & CALLCOTT
LABORATORY SERVICES
P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

Client Name: SCHLUMBERGER
Address:
Report To:
Telephone No.: FAX No.:
PO No.: Project No.: TMC

Field		
Filtered (Yes/No)	N	N
Cooled (Yes/No)	Y	Y
Container Type (P/G)	P	G
Container Volume	½G	4L
Sample Type (Grab/Composite)	C	C
Sample Source (WW, GW, DW, Other)	WW	WW
Sample Source Chlorinated (Yes/No)	N	N
Lab Receipt Cl₂ Check	NA	Neg
Lab Receipt pH Check	NA	Neutral
Preserved (Code)	A	A
PARAMETERS	TSS	PCB

Lab Receipt Cl₂ Check / pH Check: DCA 8-11-10

Preserved (Code): A–None, B–HNO_3, C–H_2SO_4, D–NaOH, E–HCL, F–$Na_2S_2O_3$, G–Boric Acid, H–Ascorbic Acid, I–____

Rogers & Callcott Lab No.	Yr. 10 Date	Time	Sample Description	Total Number of Containers	TSS	PCB	COMMENTS
AC 84190	8/10	0900	WATER TREATMENT PLANT * EFF. DISCHARGE	3	2	1	Sampler set out @ 0900 8/9/10 Time proportional By R+C. AC84189 pH 6.6 / TEMP 27.5 Grab taken + Read @ 0905 8/10/10 By R+C.

Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
SAMPLER ① [signature]	8-10-10 1144	② Norma Salley; Shipper Name & #	8-10-10 1144
③		④ Shipper Name & #	
⑤		⑥ Shipper Name & #	

Seal # ____ at'chd by ○ Recvd. Intact by ○ Seal # ____ at'chd by ○ Recvd. Intact by ○

KNOWN HAZARDS ASSOCIATED WITH SAMPLES
* SUFFICIENT SAMPLE TAKEN FOR FIELD DUPLICATES

Temperature of blank or representative sample
At time of collection 3.2 °C
At time of lab receipt 2.2 °C

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Received: 08/17/2010
Time Received: 11:55
Date Reported: 08/24/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC84740	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/17/2010 at 09:20
AC84741	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/17/2010 at 09:15

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: _____ *Results reviewed by:* _____
authorized signature

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

Sample Number	Sample Description, Date and Time Collected
AC84740	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/17/2010 at 09:20

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
pH (Field)	6.4	pH units		0.1	08/17/2010 09:20	LRW	SM 4500HB
Temperature (Field)	27.0	degrees C		0.1	08/17/2010 09:20	LRW	SM 2550B

Sample Number	Sample Description, Date and Time Collected
AC84741	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/17/2010 at 09:15

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Total Suspended Solids	13	mg/l		2.0	08/17/2010 12:05	LBW	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1221	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1232	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1242	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1248	1.0	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1254	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
PCB-1260	<RDL	ug/l		0.5	08/23/2010 05:03	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	87	%		0	08/23/2010 05:03	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	92	%		0	08/23/2010 05:03	RKH	EPA 608

Analysis comment for Polychlorinated Biphenyls (PCBs): Due to weathering, an exact match was not found for an Aroclor, but Aroclor 1248 was judged to be the best fit. The quantitation was performed by measuring the total area of Aroclor 1248, which was the most similar to the samples.

Liquid-liquid Extraction Pest/PCB 608	Completed				08/17/2010 14:00	DBB	EPA 608

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

Client Name SCHLUMBERGER

Address

Report To:

Telephone No. FAX No.

PO No. Project No. TMC

	TSS	PCB
Filtered (Yes/No)	N	N
Cooled (Yes/No)	Y	Y
Container Type (P/G)	P	G
Container Volume	1/2G	2 1/2
Sample Type (Grab/Composite)	C	C
Sample Source (WW, GW, DW, Other)	WW	WW
Sample Source Chlorinated (Yes/No)	N	N
Lab Receipt Cl_2 Check	NA	neg
Lab Receipt pH Check	NA	neutral
Preserved (Code)	A	A

Lab receipt checks initialed: mca 8-17-10

Preserved (Code): A—None, B—HNO_3, C—H_2SO_4, D—NaOH, E—HCL, F—$Na_2S_2O_3$, G—Boric Acid, H—Ascorbic Acid, I—

Rogers & Callcott Lab No.	Yr. 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS	TSS	PCB						COMMENTS:
AC 84741	8/17	0915	WATER TREATMENT PLANT EFF. DISCH.	2		1	1	-N					SAMPLER SET OUT @ 0915, 8/16/10, Time prop. By R&C
													AC84740
													pH 6.4 GRAB TAKEN + READ Temp 27.0 @ 0920 ON 8/17/10 By R+C

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
① [signature]	8.17.10 / 1155	② [signature] Shipper Name & #	8.17.10 / 1155
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time

Seal # at'chd by Recvd. intact by Seal # at'chd by Recvd. intact by

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

Temperature of blank or representative sample
At time of collection 3.1 °C
At time of lab receipt 0.9 °C

Form Revised July 2008 R/C COC FORM

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Received: 08/24/2010
Time Received: 12:10
Date Reported: 08/27/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC85198	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/24/2010 at 09:05
AC85199	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/24/2010 at 09:00

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: _____ *Results reviewed by:* _____
authorized signature

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

Sample Number	Sample Description, Date and Time Collected
AC85198	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/24/2010 at 09:05

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
pH (Field)	8.4	pH units		0.1	08/24/2010 09:05	LRW	SM 4500HB
Temperature (Field)	26.6	degrees C		0.1	08/24/2010 09:05	LRW	SM 2550B

Sample Number	Sample Description, Date and Time Collected
AC85199	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/24/2010 at 09:00

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
3 to 5 day turn around	Completed				08/27/2010 00:00		
Total Suspended Solids	9.0	mg/l		2.0	08/24/2010 14:45	LBW	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1248	1.4	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	08/25/2010 19:41	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	101	%		0	08/25/2010 19:41	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	98	%		0	08/25/2010 19:41	RKH	EPA 608

Analysis comment for Polychlorinated Biphenyls (PCBs): Due to weathering, an exact match was not found for an Aroclor, but Aroclor 1248 was judged to be the best fit and was used for the quantitation.

Liquid-liquid Extraction Pest/PCB 608	Completed				08/24/2010 13:45	DBB	EPA 608

ROGERS & CALLCOTT LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

Client Name: SCHLUMBERGER

Address:

Report To:

Telephone No.: FAX No.:

PO No.: Project No.: TMC

Rogers & Callcott Lab No.	Yr. 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS: TSS	PCB
AC 85199	8/24	0900	WATER TREATMENT PLANT EFF. Disch.	2	1	1

Filtered (Yes/No)	N	N										
Cooled (Yes/No)	Y	Y										
Container Type (P/G)	P	G										
Container Volume	½G	2½										
Sample Type (Grab/Composite)	C	C										
Sample Source (WW, GW, DW, Other)	WW	WW										
Sample Source Chlorinated (Yes/No)	N	N										
Lab Receipt Cl$_2$ Check	NA	Neg										
Lab Receipt pH Check	NA	7										
Preserved (Code)	A	A										

Preserved (Code): A–None, B–HNO_3, C–H_2SO_4, D–NaOH, E–HCL, F–$Na_2S_2O_3$, G–Boric Acid, H–Ascorbic Acid, I– ____

COMMENTS:

Samples set-up @ 0900 on 8/23/10 Time prop. By R+C

AC85198

pH 6.4 GRAB TAKEN + Temp 26.4° READ @ 0908 8/24/10 By R+C

SAMPLER Relinquished by (Sig.) ①	Date/Time 8.24.10 1210	Received by (Sig.) ② Shipper Name & #	Date/Time 8.24.10 1210
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑤ Shipper Name & #	Date/Time
Seal # at'chd by ○	Recvd. Intact by ○	Seal # at'chd by ○	Recvd. Intact by ○

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

Temperature of blank or representative sample
At time of collection 3.1 °C
At time of lab receipt 0.5 °C

Form Revised July 2008

R/C COC FORM

ROGERS & CALLCOTT
LABORATORY SERVICES

AN EMPLOYEE-OWNED COMPANY

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

Laboratory Services Report

Client: Weston Solutions Inc
Attn Timothy Maher
6430 Metric Place
Suite 100
Norcross GA 30092

Date Received: 08/28/2010
Time Received: 17:20
Date Reported: 08/31/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC85474	Weston Solutions WTS Final Effluent 082810 grab, collected on 08/28/2010 at 16:00
AC85475	Weston Solutions WTS Final Effluent 082810 filtered grab, collected on 08/28/2010 at 16:00

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: _____ *Results reviewed by:* _____
authorized signature

Carbon copy: email Tim Maher

Sample Number	Sample Description, Date and Time Collected
AC85474	Weston Solutions WTS Final Effluent 082810 grab, collected on 08/28/2010 at 16:00

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
24 to 48 hr turn around	Completed				08/31/2010 00:00		
Sampling and analysis afterhours charge	Completed				08/31/2010 00:00		
Total Organic Carbon	1.4	mg/l		1.0	08/30/2010 12:46	MSA	SM 5310C
Total Suspended Solids	4.8	mg/l		2.0	08/30/2010 08:30	MLR	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1248	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	08/30/2010 20:14	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	102	%		0	08/30/2010 20:14	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	100	%		0	08/30/2010 20:14	RKH	EPA 608
Liquid-liquid Extraction Pest/PCB 608	Completed				08/29/2010 10:30	DBB	EPA 608

Sample Number	Sample Description, Date and Time Collected
AC85475	Weston Solutions WTS Final Effluent 082810 filtered grab, collected on 08/28/2010 at 16:00

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
24 to 48 hr turn around	Completed				08/31/2010 00:00		
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1248	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	08/30/2010 21:11	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	116	%		0	08/30/2010 21:11	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	92	%		0	08/30/2010 21:11	RKH	EPA 608
Liquid-liquid Extraction Pest/PCB 608	Completed				08/29/2010 10:30	DBB	EPA 608

Sample comments: Sample was filtered through 1.2 micron filter prior to analysis per client request.

ROGERS & CALLCOTT LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

Client Name: Weston Solutions, Inc.
Address: 5430 Metric Blvd; Suite 100
Norcross, GA 30092
Report To: Randy Gonzalez, Tim Maler, Susan Littlefield & Buck Wright
Telephone No. 512-541-6028 FAX No. 864-868-0051
PO No. N/A Project No. 14492.002.001.0105.01

Parameter	PCBs (filtered)*	PCBs (unfiltered)	TSS	TOC
Filtered (Yes/No)	N	N	N	N
Cooled (Yes/No)	Y	Y	Y	Y
Container Type (P/G)	G	G	P	G
Container Volume	4x 4L	4x 4L	1/2 gal	250ml
Sample Type (Grab/Composite)	G	G	G	G
Sample Source (WW, GW, DW, Other)	WW	WW	WW	WW
Sample Source Chlorinated (Yes/No)	N	N	N	N
Lab Receipt Cl_2 Check	Yes	Yes	NA	NA
Lab Receipt pH Check	7	7	NA	<2
Preserved (Code)	I	I	I	H/J

Lab Receipt checks: mca 8-30-10

Preserved (Code): A–None, B–HNO_3, C–H_2SO_4, D–NaOH, E–HCL, F–$Na_2S_2O_3$, G–Boric Acid, H–Ascorbic Acid, I–ICE, J–H_3PO_4

Rogers & Callcott Lab No.	Date (Yr. 2010)	Time	Sample Description	Total Number of Containers	PCBs (filtered)*	PCBs (unfiltered)	TSS	TOC	COMMENTS
	28 AUG	16:00	WTS FINAL EFFLUENT-082810	3	1	1	1	1	* - Filter sample through 1-micron filter prior to PCB run.
					AC85475	AC85474			• Expedite turn around time is requested. ASAP

SAMPLER Randy Gonzalez Relinquished by (Sig.) ①	Date/Time 28 Aug 2010 17:20	Received by (Sig.) ② Shipper Name & #	Date/Time 8/28/10 17:20
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time

Seal # at'chd by ○ Recvd. Intact by ○ Seal # at'chd by ○ Recvd. Intact by ○

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

Temperature of blank or representative sample
At time of collection ____ °C
At time of lab receipt 2.6 °C

Form Revised July 2008 R/C COC FORM

EXPLANATION OF REPORT SYMBOLS AND ABBREVIATIONS

The following defines common symbols and abbreviations used in reporting technical data:

<	Less than
>	Greater than
mg/L, mg/kg	Units of concentration in milligrams per liter for liquids, and milligrams per kilogram for solids. Also referred to as parts per million or "ppm".
µg/L, µg/kg	Units of concentration in micrograms per liter for liquids, and micrograms per kilogram for solids. Also referred to as parts per billion or "ppb".
RDL	Reported detection limit
CFU	Colony forming unit
TNTC	Too numerous to count
MSL	Mean sea level
NTU	Nephelometric turbidity units
µmhos/cm	Units of specific conductance expressed in micromhos per centimeter
°C , °F	Units of temperature expressed in degrees Celsius or degrees Fahrenheit.
mgd, gpd	Measure of flow in million gallons per day (mgd) or gallons per day (gpd).
Surrogate	Compound added by the laboratory for quality control monitoring.
Data Qualifiers:	
J	Estimated value
Q	Laboratory specific qualifier - refer to case narrative or client notification form.
K	The sample was analyzed beyond the accepted holding time.
B	Analyte was also detected in the method blank.
X	Result subject to sample matrix interference. Reported detection limit has been adjusted where applicable.
Z	Defined in comments. If there are multiple comments, the "Z" may be followed by a number designation.
E	Estimated value - the analyte was detected at concentrations greater than the calibration range.
S	The matrix spike and / or matrix spike duplicate sample recovery was not within control limits.
SI	The matrix spike and / or matrix spike duplicate sample recovery was not within control limits due to matrix interference.
P	The RPD between the sample / duplicate or matrix spike / spike duplicate was not within quality control limits.
PI	The RPD between the sample / duplicate or matrix spike / spike duplicate was not within quality control limits due to sample matrix interference.
R	The surrogate was not within quality control limits.
RI	The surrogate wns not within quality control limits due to matrix interference.
L	The analyte in the LCS was not within control limits.
D	Due to a discrepancy between the BOD and COD results, the BOD has been reported as less than the COD value.
A	Reporting limit has been adjusted due to limited sample volume.

LIMITATION OF LIABILITY - The accuracy of all analytical results is for the sample as is received by the laboratory. The integrity of the sample begins at the time it is placed in the possession of authorized Rogers and Callcott Engineers, Inc. laboratory personnel. All warranties, expressed, or implied, are disclaimed. Liability is limited to the cost of the analyses.

SAMPLE RETURN POLICY - Rogers and Callcott Engineers, Inc. reserves the right to charge a sample disposal fee or to return samples to the client.

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Received: 08/31/2010
Time Received: 12:40
Date Reported: 09/02/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC85564	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/31/2010 at 09:20
AC85565	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/31/2010 at 09:15

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: _____ ***Results reviewed by:*** _____
authorized signature

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

Sample Number	Sample Description, Date and Time Collected
AC85564	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge grab, collected on 08/31/2010 at 09:20

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
pH (Field)	6.5	pH units		0.1	08/31/2010 09:20	LRW	SM 4500HB
Temperature (Field)	24.9	degrees C		0.1	08/31/2010 09:20	LRW	SM 2550B

Sample Number	Sample Description, Date and Time Collected
AC85565	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/31/2010 at 09:15

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
24 to 48 hr turn around	Completed				09/02/2010 00:00		
Total Suspended Solids	3.6	mg/l		2.0	08/31/2010 16:05	MLR	SM 2540D
Polychlorinated Biphenyls (PCBs)							
PCB-1016	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1221	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1232	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1242	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1248	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1254	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
PCB-1260	< RDL	ug/l		0.5	09/02/2010 07:13	RKH	EPA 608
2,4,5,6-Tetrachloro-m-xylene, (Surrogate	99	%		0	09/02/2010 07:13	RKH	EPA 608
Decachlorobiphenyl, (Surrorate)	102	%		0	09/02/2010 07:13	RKH	EPA 608
Liquid-liquid Extraction Pest/PCB 608	Completed				08/31/2010 13:05	DBB	EPA 608

ROGERS & CALLCOTT LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

Client Name SCHLUMBERGER

Address

Report To:

Telephone No. FAX No.

PO No. Project No. TMC

Rogers & Callcott Lab No.	Yr.10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS: TSS	PCB
AC 85505	8/31	0915	WASTE TREATMENT PLANT EFF. DISCH.	2	1	1

Filtered (Yes/No)	N	N										
Cooled (Yes/No)	Y	Y										
Container Type (P/G)	P	G										
Container Volume	½G	2½ L										
Sample Type (Grab/Composite)	C	C										
Sample Source (WW, GW, DW, Other)	WW	WW										
Sample Source Chlorinated (Yes/No)	N	N										
Lab Receipt Cl, Check	NA	Neg										
Lab Receipt pH Check	NA	Neutral										
Preserved (Code)	A	A										

A—None D—NaOH G—Boric Acid
B—HNO_3 E—HCL H—Ascorbic Acid
C—H_2SO_4 F—$Na_2S_2O_3$ I— ____

COMMENTS:

SAMPLER SET @ 0915 8/30/10, TIME PUMP. BY R&C

AC85505 4 KWR 8.31

pH 6.5 GRAB TAKEN + Temp 24.8 READ @ 0920 ON 8/31/10 BY R&C.

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
① [signature]	8/31/10 1240	② Norma Salley Shipper Name & #	8/31/10 1240
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time

Seal # at'chd by ○ Recvd. Intact by ○ Seal # at'chd by ○ Recvd. Intact by ○

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

Temperature of blank or representative sample
At time of collection 3.0 °C
At time of lab receipt 0.8 NOT FROZEN °C

Form Revised July 2008

R/C COC FORM

ARCADIS

Attachment B

Laboratory Services Report:
Whole Effluent Toxicity Testing

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone: (864) 232-1556 - FAX: (864) 232-6140

AN EMPLOYEE-OWNED COMPANY

Laboratory Services Report

Client: Schlumberger Technology Corporation
Sangamo - Twelve Mile Creek Project
Attention Gary Odom by email

Date Reported: 08/13/2010

South Carolina Laboratory Identification 23105
North Carolina Laboratory Certificate Number 27
NELAP Laboratory Identification E87822

Sample Number	*Sample Description*
AC83569	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/03/2010 at 09:05
AC83659	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/04/2010 at 09:15
AC83832	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/06/2010 at 09:20

The attached report is for the samples that were received and are referenced above. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements of the NELAC standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty available upon request.

We appreciate the opportunity to be of service to you. Please contact us at (864) 232-1556 should you have any questions about this report.

Results released by: Anne Norris
authorized signature

Results reviewed by: SSb

Carbon copy: Email to L Ketcham P Dougher A Kohler S Cary

ROGERS & CALLCOTT
LABORATORY SERVICES

Case Narrative

AC83569 Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/03/2010 at 09:05

Composite sample AC83569 was subcontracted to ETT for Acute and Chronic Toxicity tests.

AC83659 Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/04/2010 at 09:15

This sample was an additional composite sample subcontracted to complete the Chronic Toxicity testing.

AC83832 Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/06/2010 at 09:20

This sample was an additional composite sample subcontracted to complete the Chronic Toxicity testing.

Sample Number	Sample Description, Date and Time Collected
AC83669	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/03/2010 at 09:05

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Subcontracted Sample Analysis	Completed				08/13/2010 00:00		

Analysis comment for Subcontracted Sample Analysis: See enclosed subcontract report which includes a total of 12 pages for Acute and Chronic Toxicity from ETT Environmental Inc.

Sample Number	Sample Description, Date and Time Collected
AC83669	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/04/2010 at 09:15

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Subcontracted Sample Analysis	Completed				08/13/2010 00:00		

Sample Number	Sample Description, Date and Time Collected
AC83832	Schlumberger Technology TMC Water Treatment Plant Effluent Discharge composite, collected on 08/06/2010 at 09:20

Parameter	Result	Unit	Flag	RDL	Date/Time	Analyst	Method
Subcontracted Sample Analysis	Completed				08/13/2010 00:00		

ETT environmental, inc.

(864) 877-6942 . FAX (864) 877-6938

P.O. Box 16414, Greenville, SC 29606

Craftsman Court, Greer, SC 29650

August 10, 2010

Susan Gunter
Rogers & Callcott
PO Box 5655
Greenville, SC 29606

Dear Susan :

Please find enclosed the results of the most recent set of toxicity tests conducted for the Twelve Mile Creek Restoration Project. Composite samples were collected by Rogers and Callcott employees on August 3rd at 0905(AC83569), August 4th at 0915 (AC83659), and August 6th at 0920 (AC83832), 2010. The results included pertain only to the samples provided.

If you have any questions concerning the report, please give us a call. Thank you for allowing ETT Environmental to assist Rogers & Callcott with your biological monitoring requirements.

Sincerely,

Robert W. Kelley, Ph.D.
Laboratory Manager

Enclosure(s)

nelac Test results presented in this report conform to all requirements of NELAC, conducted under NELAC Certification Number E87819. Florida Dept. of Health.

ETT environmental, inc.

(864) 877-6942 . FAX (864) 877-6938

P.O. Box 16414, Greenville, SC 29606

Craftsman Court, Greer, SC 29650

REPORT CONTENTS

This report includes the following pages;

ETT environmental, inc.

(864) 877-6942 . FAX (864) 877-6938

P.O. Box 16414, Greenville, SC 29606

Craftsman Court, Greer, SC 29650

7 Day Chronic Definitive Survival and Reproduction Bioassay

Method: EPA-821-R-02-013 1002

Test Organism: *Ceriodaphnia dubia*

Facility: TWELVE MILE CREEK RESTORATION PROJECT
NPDES #: SC

03-Aug-10

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

DMR Attachment for Chronic Multi-Concentration Whole Effluent Toxicity Test Results using Linear Interpolation

TWELVE MILE CREEK RESTORATION PROJEC Permit number SC Discharge number

FINAL LIMIT 04/01/2010- Parameter Code TCP3B MLOC=1 CTC= 17.40% effluent

Monitoring period	Year	Month	Day		Year	Month	Day
From	10	8	01	To	10	8	31

Date 03-Aug-10

Lab ID 23104

IC25= 90.00 %

48 hr Chronic LC50 = >100.0%

	Mortality Data		Reproduction Data	
Group	# Adults	# Dead	Group Average	Group Variance
0	10	0	27.2	14.84
8	10	0	21.6	42.93
17.4	10	0	25.4	20.04
35	10	0	23.1	33.21
50	10	0	21.6	34.04
100	10	0	20.1	18.99

% Survival Effect at CTC= 0.0%

% Reproduction Effect at CTC= 13.6%

Date

Lab ID 23104

IC25=

48 Hour Chronic LC50 =

	Mortality Data		Reproduction Data	
Group	# Adults	# Dead	Group Average	Group Variance
0				
8				
17.4				
35				
50				
100				

% Survival Effect at CTC=

% Reproduction Effect at CTC=

Signature of Principal Executive Officer or Authorized Agent _____

Name/Title of Principal Executive Officer (*typed or printed*) _____

DHEC 3710 (8/05)

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if Different*)
NAME TWELVE MILE CREEK RESTORATION PROJECT
ADDRESS
PICKENS COUNTY, SC

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

MINOR

Form Approved.
OMB No. 2040-0004

SC	
PERMIT NUMBER	DISCHARGE NUMBER

FINAL LIMITS

FACILITY TWELVE MILE CREEK RESTORATION PROJECT
LOCATION PICKENS COUNTY, SC

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	10	8	01	TO	10	8	31

DMR VALID: 04/01/2010-

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUANTITY OR CONCENTRATION MINIMUM	QUANTITY OR CONCENTRATION AVERAGE	QUANTITY OR CONCENTRATION MAXIMUM	QUANTITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
TCP3B LAB ID: 23104 %Effect Statre 7Day Chr Ceriodaphnia MLOC=1	SAMPLE MEASUREMENT	**********	**********	*****	**********	13.6	13.6	PER-CENT	0	1/90	24
	PERMIT REQUIREMENT	**********	**********	*****	**********	25 QRTR AVG	40 MAXIMUM			1/90	24
TJP3B LAB ID: 23104 %Mortality 7Day Chr CERIODAPHNIA MLOC=1	SAMPLE MEASUREMENT	**********	**********	*****	**********	0.0	0.0	PER-CENT	0	1/90	24
	PERMIT REQUIREMENT	**********	**********	*****	**********	REPORT QRTR AVG	REPORT MAXIMUM			1/90	24
TVP3B LAB ID: 23104 % Repro Reduc Statre 7d Chr Ceriodaphnia MLOC=1	SAMPLE MEASUREMENT	**********	**********	*****	**********	13.6	13.6	PER-CENT	0	1/90	24
	PERMIT REQUIREMENT	**********	**********	*****	**********	REPORT QRTR AVG	REPORT MAXIMUM			1/90	24
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

TYPED OR PRINTED

I Certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
AREA CODE NUMBER

DATE
YEAR MO DAY

COMMENTS AND EXPLANATIONS OF ANY VIOLATIONS (*Reference all attachments here*)

Chronic toxicity CTC=17.4% effluent

EPA Form 3320-1 (Rev 3/99) Previous editions may be used.

CHRONIC DEFINITIVE SURVIVAL AND REPRODUCTION TEST
Statistical Analyses

Client: TWELVE MILE CREEK RESTORATION PROJECT
Sample Identification: Effluent
Test Date: 03-Aug-10

Tests for Normality and Heterogeneity of Variance

Parameter	*Test Used*		*Result*	*Critical Value*
Normality	: Kolmogorov D	D=	1.325	0.895
Variance	: Bartlett's Test	B=	3.77	15.1

The data are normal in distribution.
The data are homogeneous in variance.

Sample Use

	Days of Use
Sample A	Day 0,1
Sample B	Day 2,3
Sample C	Day 4,5,6

Tests for Differences in Survival and Reproduction

Test Type Used: Linear Interpolation

Effect	Control	8.0%	17.4%	35.0%	50.0%	100.0%
Survival	100%	100%	100%	100%	100%	100%
% reduction		0.0%	0.0%	0.0%	0.0%	0.0%
Reproduction	27.2	21.6	25.4	23.1	21.6	20.1
% reduction (smoothed)		13.6%	13.6%	15.1%	20.6%	26.1%
Variance	14.84	42.93	20.04	33.21	34.04	18.99

Acceptability Criteria	Value	Upper Limit	Lower Limit
CV:Coeff. of Variation	14.2%	42.0%	8.9%
PMSD: % MSD	18.5%	37.0%	11.0%
MSD:Min. Sign. Diff.	5.0	Acceptability criteria limits not exceeded	

IC25 Point Estimates

Survival IC25= > 100.0%

Reproduction IC25= 90.00 %

Hypothesis Testing

NOEC (Reproduction) 50.0%

ChV (Reproduction) 70.7%

TEST RESULTS

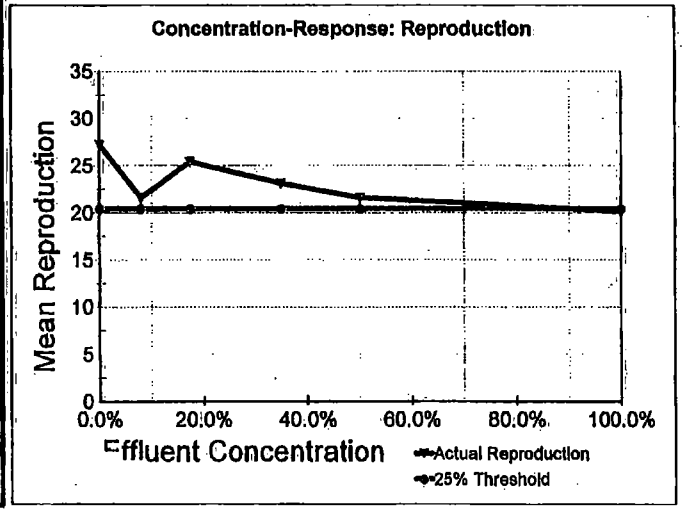
%Reduction per Linear Interpolatic

@CTC of 17.4%

Survival effect 0.0%

Reproduction effect 13.6%

Pass



Comments

source	rep	Test Day 1	2	3	4	5	6	7	8	Total	
ET 7-22	A			0	4	10	14			28	control
CC1 7-23	B			0	4	8	12			24	
S9 7-23	C			0	6	12	13			31	
CC2 7-23	D			0	3	9	12			24	
T10 7-23	E			3	0	8	9			20	
B7 7-22	F			0	5	10	11			26	
W1 7-23	G			0	5	11	14			30	
D2 7-22	H			0	4	13	12			29	
O2 7-22	I			0	3	11	13			27	
M6 7-22	J			0	6	11	16			33	27.2
8 %	A			3	0	9	12			24	
	B			0	4	10	8			22	
	C			0	4	11	15			30	
	D			0	3	8	10			21	
	E			0	5	9	9			23	
	F			0	4	9	11			24	
	G			3	0	8	12			23	
	H			0	4	4	0			8	
	I			0	4	10	14			28	Mean
	J			0	3	10	0			13	21.6
17.4 %	A			3	0	12	11			26	
	B			0	3	10	14			27	
	C			0	3	10	12			25	
	D			0	5	8	12			26	
	E			0	4	7	13			24	
	F			0	4	11	0			15	
	G			0	5	9	16			30	
	H			0	4	11	11			26	
	I			0	5	10	9			24	Mean
	J			0	6	12	14			32	25.4
35 %	A			2	0	8	15			25	
	B			0	3	6	11			20	
	C			0	4	12	12			28	
	D			0	3	12	16			31	
	E			0	5	10	10			25	
	F			0	5	8	0			13	
	G			0	4	9	12			25	
	H			0	4	9	12			25	
	I			0	4	10	0			14	Mean
	J			0	4	10	11			25	23.1
50 %	A			2	0	8	12			22	
	B			0	2	12	11			25	
	C			0	5	7	12			24	
	D			0	4	9	10			23	
	E			0	4	9	12			25	
	F			0	4	8	11			23	
	G			3	0	10	15			28	
	H			0	3	9	0			12	
	I			0	5	0	5			10	Mean
	J			0	4	10	10			24	21.6
100 %	A			0	4	9	9			22	
	B			0	4	8	9			21	
	C			0	4	7	9			20	
	D			0	3	9	11			23	
	E			2	0	8	8			18	
	F			3	0	10	9			22	
	G			3	0	9	10			22	
	H			0	4	6	0			10	
	I			0	5	10	11			26	Mean
	J			0	4	5	8			17	20.1
renew		BB	AE	JC	BB	JC			End Date		
fed		BB	AE	JC	BB	JC			09-Aug-10		
time fed & renew		12:33 PM	02:33 PM	02:51 PM	03:05 PM	10:00 AM			01:22 PM	JC	
New temp. °C		25.1	25.7	24.6	24.8	24.9					
Old temp. °C		24.8	25.2	24.4	24.7	24.7	24.3				

D=Dead N/A-Lost or not used

Lab#	T35795
Client	SCHLUMBERGER
Sample ID	EFFLUENT
NPDES#	SC
County	0
Month	8
Start & fed Date	8-3-10
Start & fed Time	1545
Started & fed By	AE
Test Organism	Ceriodaphnia dubia
Neo. born date	8/2/10
Neo. born time	BATCH 2
Test Type	SCCD
Dilution Water	MHSF
Units for Conc.	%
%3rd BROOD	
Test vessels	30 ml
Test volume	15 ml
Incubator #	1
Light	16ll/8dk
Initial Temp °C	25.2
Selenastrum	0.05 ml
YAT	0.05 ml
Test method	EPA 821-R-02-013:1002

Comments

ROGERS & CALLCOTT
LABORATORY SERVICES
P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

Client Name: ROGERS + CALLCOTT

Address:

Report To:

Telephone No.: FAX No.:

PO No.: Project No.: TMC

Filtered (Yes/No)	N
Cooled (Yes/No)	Y
Container Type (P/G)	P
Container Volume	½G
Sample Type (Grab/Composite)	C
Sample Source (WW, GW, DW, Other)	WW
Sample Source Chlorinated (Yes/No)	N
Lab Receipt Cl_2 Check	
Lab Receipt pH Check	
Preserved (Code)	A

Preserved codes: A–None, B–HNO_3, C–H_2SO_4, D–NaOH, E–HCL, F–$Na_2S_2O_3$, G–Boric Acid, H–Ascorbic Acid, I–

Rogers & Callcott Lab No.	Yr 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS: Acute + Chronic Toxicity	COMMENTS:
AC 83569	8/3	0905	WASTE TREATMENT PLANT *	1	1	SAMPLE SET ON @ 0905
35795 A			ETT. DISCHARGE			8/2/10, TIME PROPORTIONAL
35796						By R+C

	Date/Time		Date/Time
SAMPLER Relinquished by (Sig.) ① [signature]	8/3/10 1350	Received by (Sig.) ② [signature] Shipper Name & #	8-3-10 1355
Relinquished by (Sig.) ③		Received by (Sig.) ④ Shipper Name & #	
Relinquished by (Sig.) ⑤		Received by (Sig.) ⑥ Shipper Name & #	

Seal # at'chd by ○ Recvd. intact by ○ Seal # at'chd by ○ Recvd. intact by ○

KNOWN HAZARDS ASSOCIATED WITH SAMPLES
* DELIVERED TO ETT LAB

Temperature of blank or representative sample
At time of collection 6.0 °C
At time of lab receipt 3.8 °C

Form Revised July 2008 R/C COC FORM

ROGERS & CALLCOTT
LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

PAGE 1

Client Name ROGERS + CALLCOTT

Address

Report To:

Telephone No. FAX No.

PO No. Project No. TMC

Rogers & Callcott Lab No.	Yr 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS: Chronic Toxicity
AC 83659	8/4	0915	WATER TREATMENT PLANT *	1	1
35795B			EFF. DISCH.		

Filtered (Yes/No)	N								
Cooled (Yes/No)	Y								
Container Type (P/G)	P								
Container Volume	2C								
Sample Type (Grab/Composite)	C								
Sample Source (WW, GW, DW, Other)	WW								
Sample Source Chlorinated (Yes/No)	N								
Lab Receipt Cl$_2$ Check									
Lab Receipt pH Check									
Preserved (Code)	A								

Preserved (Code)
A=None D=NaOH G=Boric Acid
B=HNO_3 E=HCL H=Ascorbic Acid
C=H_2SO_4 F=$Na_2S_2O_3$ I= ____

COMMENTS:

SAMPLES SENT TO 0915 ON 8/3/10, TIME PROP. BY R+C

SAMPLER Relinquished by (Sig.) ①	Date/Time 8/4/10 1300	Received by (Sig.) ② Amy Ewald ETT Shipper Name & #	Date/Time 8/4/10 1300
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time
Seal # at'chd by ○ Recvd. Intact by ○		Seal # at'chd by ○ Recvd. Intact by ○	

KNOWN HAZARDS ASSOCIATED WITH SAMPLES
* DELIVERED TO ETT LAB

Temperature of blank or representative sample
At time of collection 6.0 °C
At time of lab receipt 1.9 °C

Form Revised July 2008

R/C COC FORM

ROGERS & CALLCOTT LABORATORY SERVICES

P.O. Box 5655, Greenville, SC 29606
Phone (864) 232-1556 Fax (864) 232-6140
Shipping Address: 426 Fairforest Way
Greenville, SC 29607

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

Client Name: ROGERS + CALLCOTT

Address:

Report To:

Telephone No.: FAX No.:

PO No.: Project No.: TMC

Rogers & Callcott Lab No.	Yr. 10 Date	Time	Sample Description	Total Number of Containers	PARAMETERS: CHRONIC TOXICITY
AC 83832	8/6	0920	WATER TREATMENT PLANT EFF. DISCHARGE *	1	1

Filtered (Yes/No)	N									
Cooled (Yes/No)	Y									
Container Type (P/G)	P									
Container Volume	½G									
Sample Type (Grab/Composite)	C									
Sample Source (WW, GW, DW, Other)	WW									
Sample Source Chlorinated (Yes/No)	N									
Lab Receipt Cl_2 Check										
Lab Receipt pH Check										
Preserved (Code)	A									

A=None B=HNO_3 C=H_2SO_4 D=NaOH E=HCL F=$Na_2S_2O_3$ G=Boric Acid H=Ascorbic Acid I= ____

COMMENTS:

3574SC

Sampler set out @ 0820 on 8/5/10, Time prop. By R+C

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
①	8/6/10 1330	② Shipper Name & #	8-6-10 1330
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤	Date/Time	Received by (Sig.) ⑥ Shipper Name & #	Date/Time

KNOWN HAZARDS ASSOCIATED WITH SAMPLES

* DELIVERED TO ETTLAB

Temperature of blank or representative sample

At time of collection 3.0 °C

At time of lab receipt 1.6 °C

Seal # at'chd by Recvd. Intact by Seal # at'chd by Recvd. Intact by

Form Revised July 2008

R/C COC FORM

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

DMR Attachment for Pass/Fail Whole Effluent Toxicity Test Results

TWELVE MILE CREEK RESTORATION PROJE Permit number SC — Discharge number

FINAL LIMITS 4/01/2010- — Parameter Code TAA3B — MLOC=1 — 35.5%

Monitoring period	Year	Month	Day		Year	Month	Day
From	10	8	01	To	10	8	31

Date 03-Aug-10
Lab ID 23104

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control	20	0	Pass			
Test	20	0				

Date
Lab ID

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control						
Test						

Date
Lab ID

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control						
Test						

Date
Lab ID

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control						
Test						

Date
Lab ID

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control						
Test						

Date
Lab ID

Group	# Adults	# Dead	Pass/Fail	Average	Variance	Pass/Fail
	Mortality Data - Acute and Chronic Tests			Reproduction Data-Chronic Tests Only		
Control						
Test						

Signature of Principal Executive Officer or Authorized Agent ______________________

Name/Title of Principal Executive Officer (*typed or printed*) ______________________

DHEC 3420 (8/05)

STATISTICAL ANALYSIS RESULTS

Facility:	12 MILE CREEK RESTORATION		NPDES#	SC	
Sample ID:	EFFLUENT	ETT#	T35796	Date:	03-Aug-10
Laboratory:	ETT Environmental, Inc.	Certification #: 23104		Exp. Date:	10/4/2011

Survival Data

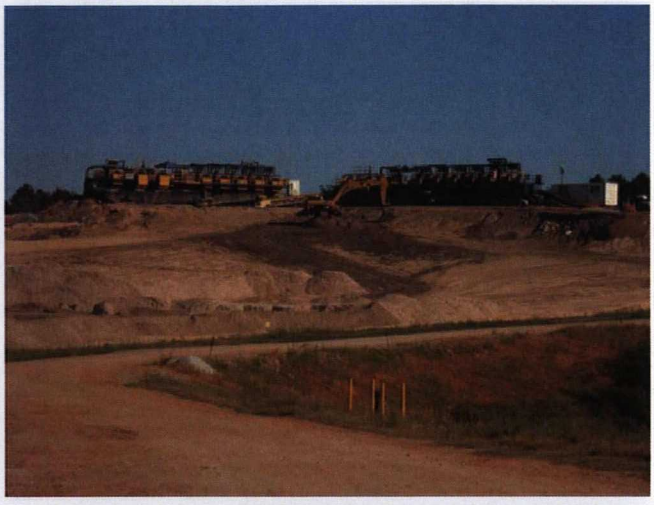
	48 Hrs. Survival			
Control	100%	Test Used:	Fisher's Test	
Effluent	100%	Test Statistic:	P=	1.000
		Critical Value:	P=	0.05

PASS: The effluent does not reduce survival of the test organisms.

ARCADIS

Attachment 3

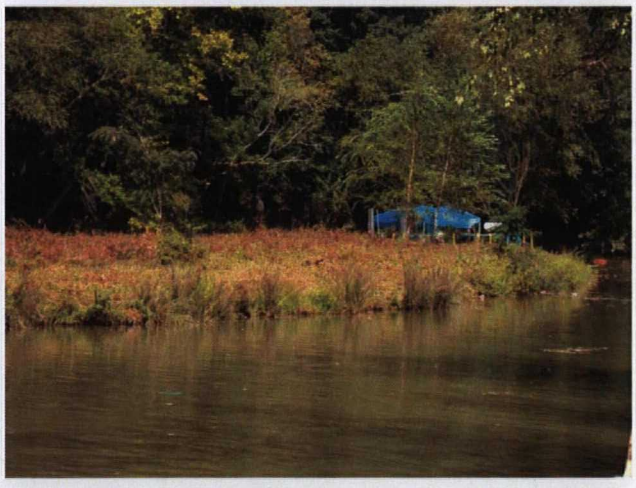
September Monthly Construction Photo Log



Dredged sediments being spread around the SMU

Kami dredge near STA 46+00

Dredged sediments in SMU



Clare dredge begins dredging into large island above WS-1

Dredged sediments in SMU

Kami dredging near STA 48+00